International Application No. PCT/EP99/09442 International Filing Date: December 3, 1999

U.S. Serial No. 09/857,933

REMARKS

The specification has been amended to claim priority from certain foreign and

international applications, to correct certain inadvertent typographical errors, to properly

identify certain trademarked materials discussed in the specification and to provide an

abstract. These amendments are also shown in the attached document entitled "Version

Marked to Show Changes Made." No new matter has been introduced.

Claim 1 has been amended to correct certain informalities. The amendments to

claim 1 are shown in the separately enclosed document entitled "Version Marked to

Show Changes Made." New claims 12-38 have been added. Original claims 2-11

having been canceled in the first Preliminary Amendment, claims 1 and 12-38 remain

pending in the application.

Respectfully submitted

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In the Specification:

The second full paragraph on page 17 of the specification has been

amended as follows:

In one preferred embodiment of the present invention, the organic

polymer used comprises a polyester or a mixture of two or more polyesters or a mixture

of one or more polyesters and a polyether or a mixture of two or more polyethers.

Suitable polyesters may be [[lacuna]] prepared, for example, by reacting OH-carrying

polyesterpolyols with appropriately functionalized alkoxysilane compounds of the

general formula III

$$Y-A-Si(Z)_n(OR)_{3-n}$$
 (III)

in which Y is a radical containing at least one OH-reactive functional group, for example, at least one NCO group, halide group, oxirane group, acid anhydride group or acid halide group, and A, Z, R and n are as already defined above.

The first full paragraph on page 18 of the specification has been amended as follows:

Polyesterpolyols suitable in one preferred embodiment of the present invention are substantially linear and have, for example, a molecular weight of from about 1000 to about 50,000 and also an OH number of from about 10 to about 200, for example, from about 20 to about 80. Suitable polyesterpolyols available commercially are, for example, [Desmophen] DESMOPHEN-2020-E, [Desmophen] DESMOPHEN-C-200,

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[Baycoll] <u>BAYCOLL</u>-AD-2052 (manufacturer: Bayer AG) or [Ravecarb] <u>RAVECARB</u>-

106 or 107 (manufacturer: Enichem), or mixtures of two or more thereof.

The last paragraph on page 19 of the specification has been amended as follows:

In another preferred embodiment, polyethers are used as organic polymers. The

polyethers that are suitable in the context of the present invention include the alkylene

oxide adducts of appropriate starter compounds, examples being water, ethylene glycol,

diethylene glycol, propylene glycol, dipropylene glycol, glycerol, 1,2,6-hexanetriol,

1,1,1-trimethylolethane, trimethylolpropane, pentaerythritol, sorbitol, mannitol or

glucose, or higher polysaccharides. In one preferred embodiment of the invention,

polyethers are used which [[lacuna]] are prepared by polyaddition of ethylene oxide or

propylene oxide or their mixture onto the aforementioned starter compounds, especially

the adducts of propylene oxide. Suitable polyethers are described, for example, in EP-B

0 184 829 and the documents cited therein, which, insofar as they relate to polyethers,

are part of the disclosure content of the present text.

The third full paragraph on page 20 of the specification has been amended as

follows:

Likewise suitable in the context of the present invention are polyethers

containing amino groups (for example, [Jeffamines] JEFFAMINE polyethers) and silyl

groups which have a functionality of from about 2 to about 6 and a molecular weight of

from about 500 to about 50,000, for example, from about 1000 to about 20,000.

The first full paragraph on page 24 of the specification has been amended as

follows:

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Examples of polymers which contain silane groups, are suitable in accordance with the invention and are obtainable commercially are [Desmoseal] <u>DESMOSEAL</u> LS 2237 (manufacturer[.]: Bayer AG) or WITTON WSP-725 (manufacturer: Witton Chemical Co. Ltd.), KANEKA S 203, KANEKA MAX 450, KANEKA MAX 500, HANSE CHEMIE Polymer ST 50, HANSE CHEMIE Polymer OM 53, WITTON 627 or WITTON 725/80.

The paragraph beginning at line 30 on page 27 of the specification has been amended as follows:

Examples of suitable additives include stabilizers, defoamers, antioxidants, light stabilizers, pigment dispersants, fillers, low molecular mass silanes as adhesion promoters, resins, waxes, tackifiers, pH regulators, plasticizers, dyes, including indicator dyes, [microbicides] microbicides, and the like.

The two paragraphs beginning at line 6 on page 29 of the specification have been amended as follows:

Examples of suitable plasticizers are esters such as abietic esters, adipic esters, azelaic esters, benzoic esters, butyric esters, acetic esters, esters of higher fatty acids having from about 8 to about 44 C atoms, esters of OH-bearing or epoxidized fatty acids, fatty acid esters and fats, glycolic esters, phosphoric esters, phthalic esters, of linear or branched alcohols containing 1 to 12 C atoms, propionic esters, sebacic esters, sulfonic esters, thiobutyric esters, trimellitic esters, citric esters, and also esters based on nitrocellulose and polyvinyl acetate, and also mixtures of two or more thereof.

Particularly suitable are the asymmetric esters of the difunctional, aliphatic dicarboxylic

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acids, an example being the esterification product of monooctyl adipate with 2-ethylhexanol ([Edenol] <u>EDENOL</u> DOA, Henkel, Düsseldorf).

Likewise suitable as plasticizers are the straight or mixed ethers of monofunctional, linear or branched C<sub>4-16</sub> alcohols or mixtures of two or more different ethers of such alcohols, for example, dioctyl ethers (obtainable as [Cetiol] <u>CETIOL</u> OE, Henkel, Düsseldorf).

The last paragraph on page 32 of the specification has been amended as follows:

Particularly suitable for this purpose are the products [Lowilite] LOWILITE 75,

[Lowilite] LOWILITE 77 (Great Lakes, USA).

The last paragraph on page 34 of the specification has been amended as follows:

In another preferred embodiment of the present invention, the formulations of the invention are formulated as an adhesive stick. For this purpose, appropriate thickeners are mixed into the formulations of the invention. Examples of suitable thickeners are [Carbopol] CARBOPOL 672 (BF Goodrich), [Softisan] SOFTISAN Gel (Contensio), [Aerosil] AEROSIL (Degussa), [Sipernat] SIPERNAT (Degussa), [Rilanit] RILANIT HT extra (Henkel), [Rilanit] RILANIT spez. Micro. (Henkel), [Cutina] CUTINA HR (Henkel), GENUVISCO carrageen TPH-1 (Hercules), [Klucel] KLUCEL MF (Hercules), [Millithix] MILLITHIX 925 (Milliken), [Rheolate] RHEOLATE 204 (Rheox), [Disorbene] DISORBENE LC (Roquette), [Disorbene] DISORBENE M (Roquette), [Permutex] PERMUTEX RM 4409 (Stahl), [Stockosorb] STOCKOSORB (Stockhausen), FAVOR PAC 230 (Stockhausen), T 5066 (Stockhausen), [Wacker]

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## In the Claims:

Claim 1 has been amended as follows:

1. (Amended) A polymer dispersion comprising water and at least 60% by weight of an organic polymer containing at least one group of [the] general formula <u>I</u>

$$-A-Si(Z)_n(OH)_{3-n} \qquad (I)$$

in which A is CH<sub>2</sub> or is a linear or branched, saturated or unsaturated alkylene radical having from 2 to about 12 carbon atoms or is an arylene radical having from about 6 to about 18 carbon atoms or an arylenealkylene radical having from about 7 to about 19 carbon atoms, Z is CH<sub>3</sub>, O-CH<sub>3</sub> or is a linear or branched, saturated or unsaturated alkyl radical or alkoxy radical having from 2 to about 12 carbon atoms, and n is 0, 1 or 2, or a condensation product of at least two [such] groups of the general formula I.

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## Abstract of the Disclosure

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Dispersions containing water and at least 60 weight percent of an organic polymer which has at least one silyl group of specified structure are useful as adhesives, sealing compounds, surface coating compositions and filling or molding compounds.